

Congress of the United States
Washington, DC 20515

April 29, 2021

The Honorable Matt Cartwright
Chairman
Subcommittee on Commerce, Justice,
Science, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
H-310 The Capitol
Washington, DC 20515

The Honorable Robert B. Aderholt
Ranking Member
Subcommittee on Commerce, Justice,
Science, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
1016 Longworth House Office Building
Washington, DC 20515

Dear Chairman Cartwright and Ranking Member Aderholt:

As you begin work on the Fiscal Year 2022 (FY22) Commerce, Justice, Science, and Related Agencies Appropriations bill, we write in support of the National Institute for Standards in Technology (NIST) and several of its critical missions.

We urge you to provide strong funding support for NIST's Scientific and Technical Research and Services (STRS) programs and Construction of Research Facilities accounts. We recommend that the Committee **increase STRS funding at least \$150 million above FY21** levels to further advance research projects in key areas, including quantum science and technology, artificial intelligence, Internet of things (IoT), as well as NIST measurement science programs more broadly. In addition, because delayed facilities repairs and maintenance currently have a direct impact on NIST's ability to provide critical services to industry, we request an **\$100 million increase over FY21 appropriations** for the NIST Construction of Research Facilities account. While the internal NIST construction needs are the priority, we additionally request **robust funding for NIST's Construction Grant Program (NCGP)** for grants to universities and nonprofit institution to construct new or expand existing research facilities.

NIST works with our nation's businesses and universities to drive American economic growth and job creation. Companies, academic institutions, and other federal agencies rely on STRS programs to provide foundational research and material development for their products and programs. NIST supports America's global competitiveness by aiding businesses to overcome technical obstacles – fulfilling a vital function that companies cannot do themselves. NIST's core measurement science programs, for example, provide calibrations and standards for industry broadly—from oil and gas to aerospace and medicine.

The agency also plays an essential role in emerging industries, such as quantum technology and artificial intelligence that require foundational measurements to enable U.S. dominance. The National Quantum Initiative Act, which passed with overwhelming bipartisan support in 2018, includes NIST as one of three key agencies that will help ensure the U.S. remains a global leader in quantum. The bill also authorizes the Quantum Economic Development Consortium (QED-C), a jointly funded government and private sector collaboration designed to tackle some of the challenges of moving quantum technologies from the lab to market.

In the area of artificial intelligence (AI), NIST is researching the performance and reliability of AI systems to assist in the development of international standards, as well as increase public trust in these systems making way for widespread adoption and innovation. NIST has also been tasked with developing an AI accountability framework to ensure ethical, transparent, and accountable use of AI technologies across all sectors.

In addition to AI and quantum, NIST continues to be a leader in advanced communication research through their work on 5G, PNT and internet of things (IoT). The institutes work on 5G standards is critical to the success of widespread deployment. In regards to IoT, a term that describes any physical device that is connected to the internet, NIST draws on its long history of research on cybersecurity issues to provide recommendations on security standards for the community to mitigate risk and ensure the public trust in these devices. Additionally, NIST has announced plans to accelerate work to identify and promote responsible methods of using PNT services, including GPS, in direct coordination with industry.

Lastly, modern, functional facilities are required for NIST to remain the world-leader in measurement science. Currently, NIST's aging infrastructure cannot consistently support the temperature, humidity, and power requirements for world-class measurements. Recurring failures of these utility systems in recent years has resulted in lost work and costly damage to laboratory facilities. The over 50-year-old facilities in Maryland and Colorado currently have a backlog of \$834.5 million in deferred maintenance. New construction funding would be utilized to build new laboratory space at both NIST facilities so staff can be moved in and out of this new space in order to fully address the maintenance needs in the current labs.

Furthermore, NIST's Construction Grant Program (NCGP) provides grants to universities and nonprofit institutions to construct new or expand existing research facilities; however, the program is currently unfunded. If this program were restored, research universities across the country could apply for funds to modernize facilities and significantly expand opportunities for academic, industry and government researchers to engage in highly innovative R&D projects.

For FY22 appropriations, we urge increased investment in NIST's core laboratory research programs in the **STRS account at a minimum of \$938 million**. Additionally, we urge Congress to appropriate **\$180 million for NIST facilities and construction** and **robust funding for NIST's Construction Grant Program (NCGP)**.

Thank you for your consideration, and we look forward to working with you as the appropriations process continues.

Sincerely,



Joe Neguse
Member of Congress



Anthony Gonzalez
Member of Congress

ADDITIONAL SIGNATURES

/s/

Anthony G. Brown
Member of Congress

/s/

Val B. Demings
Member of Congress

/s/

Joseph D. Morelle
Member of Congress

/s/

Sean Casten
Member of Congress

/s/

Mike Doyle
Member of Congress

/s/

Jimmy Panetta
Member of Congress

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David N. Cicilline
Member of Congress

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Jimmy Gomez
Member of Congress

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Jamie Raskin
Member of Congress

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Joe Courtney
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James R. Langevin
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Peter A. DeFazio
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Adam Smith
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Diana DeGette
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Jerry McNerney
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Mark Takano
Member of Congress